THE IMPACT OF DIVIDEND POLICY AND CLIMATE CHANGE ON SHARE PRICE VOLATILITY: A STUDY ON THE PLANTATION SECTOR OF MALAYSIA

By

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ABSTRACT

The objective of this research is to determine the impact of dividend policy and climate change on share price volatility on Malaysian Plantation sector companies listed on the Bursa Malaysia Main Board. The sample of this study consists of 33 Malaysian public listed plantation companies with 462 observations from the period of 2003 to 2016. To achieve the objective of this study, a panel data regression which is Fixed Effect model was used to analyse the dataset. Based on the regression results, it was found that dividend payout ratio (PAYOUT), dividend yield (DYIELD), market value (SIZE) and long-term debt (DEBT) negatively and significantly impacts share price volatility (PVOL). On the other hand, earnings volatility (EVOL) positively and significantly impacts share price volatility. Overall, all variables are significant to share price volatility except growth in assets (GROWTH) which is found to be negatively insignificant to share price volatility. Moreover, El Nino (ELN) and flood (FLD) which are found to be positively insignificant to share price volatility of Malaysian Plantations companies. Current results can be incorporated to the unoccupied literature field and can help as a foundational tip to the studies which will be carried out in the future.

Keywords: Dividend Policy, Share Price Volatility, Plantation Companies, Malaysia

ABSTRAK

Tujuan kajian ini adalah untuk mengkaji kesan dasar dividen dan perubahan cuaca ke atas volatiliti harga saham syarikat-syarikat sektor perladangan Malaysia yang disenaraikan di papan utama Bursa Malaysia. Sampel kajian ini terdiri daripada 33 syarikat perladangan tersenarai awam Malaysia dengan 462 pemerhatian untuk tempoh 2003 hingga 2016. Untuk mencapai matlamat kajian, regresi data panel Fixed Effect model telah digunakan untuk menganalisis dataset. Berdasarkan hasil regresi, nisbah pembayaran dividen (PAYOUT), hasil dividen (DYIELD), nilai pasaran (SIZE), hutang jangka panjang (DEBT) memberi kesan negatif dan signifikan terhadap volatility harga saham (PVOL). Sebaliknya, volatiliti pendapatan (EVOL) memberi kesan positif dan signifikan terhadap volatility harga saham. Secara keseluruhan, semua pembolehubah memberi kesan signifikan terhadap volatility harga saham kecuali pertumbuhan aset (GROWTH) yang didapati memberi kesan negatif dan tidak signifikan. Selain itu, pembolehubah El Nino (ELN) dan banjir (FLD) didapati memberi kesan positif and tidak signifikan terhadap volatility harga saham syarikat-syarikat perladangan Malaysia. Keputusan semasa boleh dimasukkan ke dalam bidang kesusasteraan yang tidak didiami dan boleh membantu sebagai tip asas untuk kajian yang akan dijalankan pada masa akan datang.

Kata Kunci: Dasar Dividen, Volatiliti Harga Saham, Syarikat Perladangan, Malaysia

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Abbreviation		Page
AMMB	AmBank Group……	4
BAT	British American Tobacco……	4
CIMB	Commerce International Merchant Bankers…….	4
DEBT	Long-Term Debt……...	33
DSM	Department of Statistics Malaysia…….	7
DYIELD	Dividend Yield……..	32
EBIT	Earnings Before Interest and Taxes……...	33
ELN	El Nino……..	34
ENSO	El Nino Southern Oscillation…….	11
ETP	Malaysian Economic Transformation Program…….	7
EVOL	Earnings Volatility…….	33
FLD	Flood……..	34
GDP	Gross Domestic Product……...	7
GROWTH	Growth in Assets……	34
KLCI	Kuala Lumpur Composite Index……..	1
KLSE	Kuala Lumpur Stock Exchange……	13
LM	Lagrangian Multiplier Test……...	41
MIDA	Malaysian Investment Development Authority……...	11
MPOC	Malaysian Palm Oil Council……	24
OLS	Ordinary Least Square……..	38
ONI	Oceanic Nino Index……..	22
PAYOUT	Dividend Payout Ratio……..	31
PVOL	Share Price Volatility……	31
SIZE	Market Value…….	32
SSM	Suruhanjaya Syarikat Malaysia…….	2
USA	United States of America……..	13
VIF	Variance Inflation Factor……...	41

LIST OF APPENDICES

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Share price volatility is the rate of change in a share price or a security over a specific period of time. Higher share price volatility reflects a gain or risk of loss. Based on Profilet and Bacon (2013), the shares are considered riskier due to its volatility and difficulty to assume the company's future share price. The volatility is interrelated with the variance of a share's price. During the last 15 years, the share price volatility in the Malaysian market has been increasing moderately with some abnormality in year 2008 due to financial crisis. Nevertheless, the share price volatility will increase immediately in the midst of financial crisis periods.

Figure 1.1
Kuala Lumpur Composite Index (KLCI), 2002 – 2017
Source: Investing.com (2018)

1.1.1 Dividend Policy and Climate Change

In year 1956, John Lintner was the first person who discovered the dividend policy. By interviewing 28 companies, he found that dividend payout policy is being treated as a firm's long-term perspective by the management and the dividend is not

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APPENDICES

Appendix A : Pooled OLS Model (Equation 1)

Dependent Variable: PVOL
Method: Panel Least Squares
Date: 07/14/18 Time: 14:53
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.455148	0.019821	22.96307	0.0000
PAYOUT	-0.129056	0.034683	-3.721010	0.0002
DYIELD	-0.819463	0.313794	-2.611466	0.0093

R-squared	0.045200	Mean dependent var	0.372340
Adjusted R-squared	0.041040	S.D. dependent var	0.185863
S.E. of regression	0.182009	Akaike info criterion	-0.563051
Sum squared resid	15.20538	Schwarz criterion	-0.536197
Log likelihood	133.0649	Hannan-Quinn criter.	-0.552479
F-statistic	10.86454	Durbin-Watson stat	1.448365
Prob(F-statistic)	0.000025		

Appendix B : Random Effects Model (Equation 1)

Dependent Variable: PVOL
Method: Panel EGLS (Cross-section random effects)
Date: 07/14/18 Time: 14:54
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.452652	0.021296	21.25487	0.0000
PAYOUT	-0.128049	0.035028	-3.655619	0.0003
DYIELD	-0.767010	0.315180	-2.433563	0.0153

Effects Specification		
	S.D.	Rho
Cross-section random	0.042597	0.0544
Idiosyncratic random	0.177546	0.9456

Weighted Statistics

R-squared	0.041883	Mean dependent var	0.277074
Adjusted R-squared	0.037708	S.D. dependent var	0.180735
S.E. of regression	0.177295	Sum squared resid	14.42791
F-statistic	10.03221	Durbin-Watson stat	1.523613
Prob(F-statistic)	0.000054		

Unweighted Statistics			
R-squared	0.045139	Mean dependent var	0.372340
Sum squared resid	15.20635	Durbin-Watson stat	1.445615

Appendix C : Fixed Effects Model (Equation 1)

Dependent Variable: PVOL
Method: Panel Least Squares
Date: 07/14/18 Time: 15:01
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.448960	0.020867	21.51561	0.0000
PAYOUT	-0.126305	0.036715	-3.440177	0.0006
DYIELD	-0.691865	0.327748	-2.110965	0.0354

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.154787	Mean dependent var	0.372340
Adjusted R-squared	0.087486	S.D. dependent var	0.185863
S.E. of regression	0.177546	Akaike info criterion	-0.546436
Sum squared resid	13.46020	Schwarz criterion	-0.233135
Log likelihood	161.2267	Hannan-Quinn criter.	-0.423087
F-statistic	2.299937	Durbin-Watson stat	1.629130
Prob(F-statistic)	0.000075		

Appendix D : Pooled OLS (Equation 2)

Dependent Variable: PVOL
Method: Panel Least Squares
Date: 07/14/18 Time: 15:02
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.923991	0.115229	8.018704	0.0000
PAYOUT	-0.090637	0.034241	-2.647068	0.0084
DYIELD	-0.966561	0.304790	-3.171240	0.0016
SIZE	-0.023123	0.005581	-4.142891	0.0000
DEBT	-0.103454	0.040850	-2.532575	0.0117
EVOL	0.683040	0.280925	2.431395	0.0154
GROWTH	-0.124279	0.071264	-1.743931	0.0818

R-squared	0.114751	Mean dependent var	0.372340
Adjusted R-squared	0.103078	S.D. dependent var	0.185863
S.E. of regression	0.176023	Akaike info criterion	-0.621369

Sum squared resid	14.09776	Schwarz criterion	-0.558709
Log likelihood	150.5361	Hannan-Quinn criter.	-0.596699
F-statistic	9.829993	Durbin-Watson stat	1.493515
Prob(F-statistic)	0.000000		

Appendix E : Random Effects Model (Equation 2)

Dependent Variable: PVOL
Method: Panel EGLS (Cross-section random effects)
Date: 07/14/18 Time: 15:03
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.977926	0.123154	7.940662	0.0000
PAYOUT	-0.087573	0.034611	-2.530219	0.0117
DYIELD	-0.905317	0.306158	-2.957030	0.0033
SIZE	-0.026074	0.005971	-4.366732	0.0000
DEBT	-0.099023	0.041494	-2.386435	0.0174
EVOL	0.682043	0.278868	2.445752	0.0148
GROWTH	-0.113351	0.070484	-1.608181	0.1085

Effects Specification	S.D.	Rho
Cross-section random	0.045241	0.0653
Idiosyncratic random	0.171180	0.9347

Weighted Statistics

R-squared	0.113187	Mean dependent var	0.264752
Adjusted R-squared	0.101492	S.D. dependent var	0.180173
S.E. of regression	0.170785	Sum squared resid	13.27123
F-statistic	9.678837	Durbin-Watson stat	1.581052
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.113993	Mean dependent var	0.372340
Sum squared resid	14.10985	Durbin-Watson stat	1.487082

Appendix F : Fixed Effects Model (Equation 2)

Dependent Variable: PVOL
Method: Panel Least Squares
Date: 07/14/18 Time: 15:06
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.067203	0.138468	7.707241	0.0000
PAYOUT	-0.083921	0.036155	-2.321123	0.0208
DYIELD	-0.837418	0.317500	-2.637534	0.0087
SIZE	-0.030832	0.006750	-4.567899	0.0000
DEBT	-0.092828	0.043604	-2.128909	0.0338
EVOL	0.680397	0.285241	2.385343	0.0175
GROWTH	-0.099598	0.071796	-1.387245	0.1661

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.221675	Mean dependent var	0.372340
Adjusted R-squared	0.151754	S.D. dependent var	0.185863
S.E. of regression	0.171180	Akaike info criterion	-0.611564
Sum squared resid	12.39499	Schwarz criterion	-0.262458
Log likelihood	180.2714	Hannan-Quinn criter.	-0.474119
F-statistic	3.170384	Durbin-Watson stat	1.688530
Prob(F-statistic)	0.000000		

Appendix G : Pooled OLS (Equation 3)

Dependent Variable: PVOL
Method: Panel Least Squares
Date: 07/14/18 Time: 14:51
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.920088	0.115631	7.957084	0.0000
PAYOUT	-0.090394	0.034302	-2.635255	0.0087
DYIELD	-0.967067	0.305298	-3.167619	0.0016
SIZE	-0.023199	0.005603	-4.140554	0.0000
DEBT	-0.104848	0.040974	-2.558897	0.0108
EVOL	0.686437	0.281436	2.439052	0.0151
GROWTH	-0.122375	0.071514	-1.711188	0.0877
ELN	0.005846	0.017600	0.332183	0.7399
FLD	0.011267	0.017759	0.634434	0.5261

R-squared	0.115705	Mean dependent var	0.372340
Adjusted R-squared	0.100089	S.D. dependent var	0.185863
S.E. of regression	0.176316	Akaike info criterion	-0.613789
Sum squared resid	14.08257	Schwarz criterion	-0.533226

Log likelihood	150.7852	Hannan-Quinn criter.	-0.582071
F-statistic	7.409095	Durbin-Watson stat	1.493254
Prob(F-statistic)	0.000000		

Appendix H : Random Effects Model (Equation 3)

Dependent Variable: PVOL
Method: Panel EGLS (Cross-section random effects)
Date: 07/14/18 Time: 14:42
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.975797	0.124053	7.865945	0.0000
PAYOUT	-0.087170	0.034718	-2.510818	0.0124
DYIELD	-0.904348	0.307008	-2.945685	0.0034
SIZE	-0.026272	0.006017	-4.366580	0.0000
DEBT	-0.100309	0.041673	-2.407050	0.0165
EVOL	0.686127	0.279563	2.454281	0.0145
GROWTH	-0.110740	0.070762	-1.564971	0.1183
ELN	0.006260	0.017199	0.363950	0.7161
FLD	0.012304	0.017331	0.709917	0.4781

Effects Specification	S.D.	Rho
Cross-section random	0.046941	0.0697
Idiosyncratic random	0.171444	0.9303

Weighted Statistics

R-squared	0.114354	Mean dependent var	0.260084
Adjusted R-squared	0.098714	S.D. dependent var	0.179966
S.E. of regression	0.170853	Sum squared resid	13.22336
F-statistic	7.311402	Durbin-Watson stat	1.584820
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.114878	Mean dependent var	0.372340
Sum squared resid	14.09575	Durbin-Watson stat	1.486736

Appendix I : Fixed Effects Model (Equation 3)

Dependent Variable: PVOL
Method: Panel Least Squares
Date: 07/14/18 Time: 14:36
Sample: 2003 2016
Periods included: 14
Cross-sections included: 33
Total panel (balanced) observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.062004	0.138979	7.641452	0.0000
PAYOUT	-0.083590	0.036214	-2.308257	0.0215
DYIELD	-0.839696	0.318004	-2.640518	0.0086
SIZE	-0.030890	0.006777	-4.558162	0.0000
DEBT	-0.094352	0.043710	-2.158592	0.0314
EVOL	0.685261	0.285743	2.398170	0.0169
GROWTH	-0.097104	0.072029	-1.348123	0.1783
ELN	0.006839	0.017283	0.395720	0.6925
FLD	0.013136	0.017393	0.755213	0.4505

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.222959	Mean dependent var	0.372340
Adjusted R-squared	0.149130	S.D. dependent var	0.185863
S.E. of regression	0.171444	Akaike info criterion	-0.604557
Sum squared resid	12.37454	Schwarz criterion	-0.237548
Log likelihood	180.6527	Hannan-Quinn criter.	-0.460063
F-statistic	3.019967	Durbin-Watson stat	1.689768
Prob(F-statistic)	0.000000		

Appendix J : LM Test (Breusch and Pagan) (Equation 1)

Lagrange multiplier (LM) test for panel data
Date: 08/03/18 Time: 14:08
Sample: 2003 2016
Total panel observations: 462
Probability in ()

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	6.444775 (0.0111)	1.261717 (0.2613)	7.706493 (0.0055)
Honda	2.538656 (0.0056)	1.123262 (0.1307)	2.589367 (0.0048)

Appendix K : Hausman Test (Equation 1)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	5.748978	2	0.0564

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
PAYOUT	-0.112703	-0.126251	0.000042	0.0375
DYIELD	-0.744756	-0.806555	0.002508	0.2172

Appendix L : VIF Test (Equation 1)

Variance Inflation Factors
Date: 08/03/18 Time: 15:29
Sample: 1 462
Included observations: 462

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.000393	5.479024	NA
PAYOUT	0.001203	3.510151	1.002683
DYIELD	0.098467	3.218064	1.002683

Appendix M : Heteroskedasticity Test (Equation 1)

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.665180	Prob. F(2,459)	0.1903
Obs*R-squared	3.327981	Prob. Chi-Square(2)	0.1894
Scaled explained SS	3.361127	Prob. Chi-Square(2)	0.1863

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 08/03/18 Time: 15:35
Sample: 1 462
Included observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.041091	0.005125	8.017105	0.0000
PAYOUT	-0.008343	0.008969	-0.930263	0.3527
DYIELD	-0.123321	0.081143	-1.519802	0.1292
R-squared	0.007203	Mean dependent var		0.032912

Adjusted R-squared	0.002878	S.D. dependent var	0.047133
S.E. of regression	0.047065	Akaike info criterion	-3.268109
Sum squared resid	1.016730	Schwarz criterion	-3.241255
Log likelihood	757.9332	Hannan-Quinn criter.	-3.257537
F-statistic	1.665180	Durbin-Watson stat	1.723185
Prob(F-statistic)	0.190297		

Appendix N : LM Test (Breusch and Pagan) (Equation 2)

Lagrange multiplier (LM) test for panel data
Date: 08/03/18 Time: 20:08
Sample: 2003 2016
Total panel observations: 462
Probability in ()

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	7.269912 (0.0070)	1.796014 (0.1802)	9.065926 (0.0026)
Honda	2.696277 (0.0035)	1.340154 (0.0901)	2.854188 (0.0022)

Appendix O : Hausman Test (Equation 2)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	13.685216	6	0.0334

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
PAYOUT	-0.073929	-0.089580	0.000046	0.0208
DYIELD	-0.872535	-0.959932	0.002414	0.0753
SIZE	-0.025412	-0.023276	0.000001	0.0048
DEBT	-0.103803	-0.103431	0.000071	0.9649
EVOL	0.461192	0.668975	0.007242	0.0146
GROWTH	-0.144626	-0.125609	0.000180	0.1561

Appendix P : VIF Test (Equation 2)

Variance Inflation Factors
Date: 08/03/18 Time: 21:12
Sample: 1 462
Included observations: 461

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.000669	9.602907	NA
PAYOUT	0.001185	3.564598	1.017471
DYIELD	0.096044	3.234012	1.007630
D(SIZE)	6.05E-05	1.010932	1.010872
DEBT	0.001738	2.761681	1.054877
EVOL	0.082056	2.916377	1.025480
GROWTH	0.005268	1.588467	1.026442

Appendix Q : Heteroskedasticity Test (Equation 2)

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.957284	Prob. F(6,455)	0.0704
Obs*R-squared	11.62435	Prob. Chi-Square(6)	0.0709
Scaled explained SS	12.65579	Prob. Chi-Square(6)	0.0488

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 08/03/18 Time: 21:16
Sample: 1 462
Included observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.105084	0.029778	3.528951	0.0005
PAYOUT	-0.008469	0.008848	-0.957068	0.3390
DYIELD	-0.119579	0.078764	-1.518195	0.1297
SIZE	-0.002880	0.001442	-1.996438	0.0465
DEBT	-0.017843	0.010556	-1.690239	0.0917
EVOL	-0.073109	0.072597	-1.007055	0.3144
GROWTH	-0.007923	0.018416	-0.430237	0.6672

R-squared	0.025161	Mean dependent var	0.030515
Adjusted R-squared	0.012306	S.D. dependent var	0.045770
S.E. of regression	0.045488	Akaike info criterion	-3.327705
Sum squared resid	0.941463	Schwarz criterion	-3.265045
Log likelihood	775.6999	Hannan-Quinn criter.	-3.303035
F-statistic	1.957284	Durbin-Watson stat	1.738472
Prob(F-statistic)	0.070361		

Appendix R : LM Test (Breusch and Pagan) (Equation 3)

Lagrange multiplier (LM) test for panel data
Date: 07/14/18 Time: 12:07
Sample: 2003 2016
Total panel observations: 462
Probability in ()

Null (no rand. effect) Alternative	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan	7.426799 (0.0064)	2.221403 (0.1361)	9.648202 (0.0019)
Honda	2.725215 (0.0032)	1.490437 (0.0681)	2.980916 (0.0014)
SLM	2.974312 (0.0015)	1.953621 (0.0254)	-- --

Appendix S : Hausman Test (Equation 3)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	19.020102	8	0.0148

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
PAYOUT	-0.072592	-0.089810	0.000048	0.0128
DYIELD	-0.852680	-0.963319	0.002639	0.0313
SIZE	-0.025950	-0.023284	0.000001	0.0009
DEBT	-0.103301	-0.104819	0.000070	0.8560
EVOL	0.455998	0.678872	0.007468	0.0099
GROWTH	-0.153804	-0.123209	0.000214	0.0365
ELN	-0.002304	0.005737	0.000065	0.3195
FLD	0.043798	0.011833	0.000305	0.0674

Appendix T : VIF Test (Equation 3)

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.000744	10.63237	NA
PAYOUT	0.001190	3.564879	1.017551
DYIELD	0.096382	3.234095	1.007656
D(SIZE)	6.08E-05	1.012952	1.012892
DEBT	0.001749	2.769014	1.057678
EVOL	0.082361	2.917009	1.025703
GROWTH	0.005306	1.594496	1.030338

ELN	0.000320	1.500131	1.008765
FLD	0.000328	1.465111	1.007463

Appendix U : Heteroskedasticity Test (Equation 3)

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.649996	Prob. F(8,453)	0.1086
Obs*R-squared	13.08105	Prob. Chi-Square(8)	0.1091
Scaled explained SS	14.22022	Prob. Chi-Square(8)	0.0762

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 07/13/18 Time: 23:25
Sample: 1 462
Included observations: 462

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.102198	0.029926	3.415030	0.0007
PAYOUT	-0.007945	0.008878	-0.894920	0.3713
DYIELD	-0.119370	0.079013	-1.510765	0.1315
SIZE	-0.002669	0.001450	-1.840676	0.0663
DEBT	-0.017885	0.010604	-1.686600	0.0924
EVOL	-0.076001	0.072837	-1.043438	0.2973
GROWTH	-0.008304	0.018508	-0.448675	0.6539
ELN	-0.005900	0.004555	-1.295323	0.1959
FLD	0.001526	0.004596	0.331926	0.7401

R-squared	0.028314	Mean dependent var	0.030482
Adjusted R-squared	0.011154	S.D. dependent var	0.045888
S.E. of regression	0.045632	Akaike info criterion	-3.317145
Sum squared resid	0.943255	Schwarz criterion	-3.236582
Log likelihood	775.2605	Hannan-Quinn criter.	-3.285427
F-statistic	1.649996	Durbin-Watson stat	1.732794
Prob(F-statistic)	0.108552		